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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,758	08/07/2006	Dean James Patterson	INMT0102PUSA	5848
22045 7590 05/28/2009 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075				
EXAMINER				
SULLIVAN, DEBRA M				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/597,758

Applicant(s)

PATTERSON ET AL.

Examiner

Debra M. Sullivan

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 35 and 36 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-34 is/are allowed.
- 6) ☒ Claim(s) 1-18 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-9 and 23-25 rejected under 35 U.S.C. 102(b) as being anticipated by Munsterman et al (US Patent # 4,403,489). Munsterman et al discloses a punch and wind machine for producing a slotted wound core, the machine including a punch arrangement (34) arranged to punch apertures (12a) in a length of material, a mandrel (42) for receiving the punched material (22), a control means (36, 60, 62, 64) and a mandrel indexing means (38, 40, 44, 46), wherein the positioning of the punch arrangement (34) and the mandrel (42) is fixed and the mandrel (42) is arranged to be rotated by the mandrel indexing means (38, 40, 44, 46) after each operation of the punch arrangement (34) so that a roll (10) of punched material is formed on the mandrel (42), the mandrel (42) being rotated by an amount determined by the control means (36, 60, 62, 64) and the control means (36, 60, 62, 64) determining the indexed amount so that the selected apertures punched in the length of the material align with one another when the material (22) is rolled onto the mandrel (42) whereby the aligned apertures form respective slots of a desired configuration in the core (10) [See col. 4 lines 15-24; FIG 3].

In reference to claim 2, the desired configuration of the slot is straight sided and radially extending as seen in figure 3.

In reference to claim 3, the mandrel indexing means (38, 40, 44, 46) rotates the mandrel (42) by varying amounts [See col. 4 lines 21-24].

In reference to claim 4, the slots (12a) produced in the core (10) are radial to the roll of material and have side walls which are substantially straight, as seen in figures 1 and 2.

In reference to claim 5, Munsterman et al further discloses roll measuring means (58) for measuring a dimension of the roll of punched material on the mandrel (42) [See col. 4 lines 43-55].

In reference to claim 6, the measured dimension is provided as an input to the control means (36, 60, 62, 64).

In reference to claim 7, the measured dimension of roll of the punched material is the radius of the roll of punched material on the mandrel (42).

In reference to claim 8, the roll measuring means includes a linear differential transformer (LVDT).

In reference to claim 9, the control means (36, 60, 62, 64) is arranged to determine an index amount using an algorithm and the measured dimension of the roll of punched material on the mandrel (42).

In reference to claim 23, the control means (36, 60, 62, 64) includes a digital computing element arranged to read the value of the radius of the roll of punched material on the mandrel (42).

In reference to claim 24, the digital computing element is further arranged to calculate the change in the mandrel angle that must be made in order to punch apertures in the material so as to ensure that selected apertures in the length of material align with one another when rolled onto

the mandrel (42) so as to thereby forming respective slots (12a) in the core (10) [See col. 4 lines 33-55].

In reference to claim 25, the control means (36, 60, 62, 64) is arranged to determine the radius of the roll of material on the mandrel (42), initiate the mandrel indexing means (38, 40, 44, 46) to rotate the mandrel (42) by a calculated index angle so as to draw more material around the roll of material formed on the mandrel, actuate the punch arrangement so as to cause an aperture to be punched in the length of material and then repeat this process until the desired radius of material is located on the mandrel (42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munsterman et al in view of Fritzsche (US Patent # 4,909,057). In reference to claims 10 and 11, Munsterman et al discloses the invention substantially as claimed except for wherein the machine includes a first roll means. However, Fritzsche teaches of a punch and winding machine having a first roll means comprising of feed rollers (41) in order to intermittently feed a strip to the punch arrangement accurately and provide a tension on the strip during the punching operation [See col. 9 lines 38-56]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine of Munsterman et al to

include a first roll means, as taught by Fritzsche, in order to accurately feed the strip to the punch arrangement intermittently.

In reference to claim 12, Fritzsche further teaches of the first roll means is driven by a servo control.

2. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munsterman et al and Fritzsche as applied to claim 10 above, and further in view of Chubbuck (US Patent # 2,356,972). Munsterman et al in view of Fritzsche discloses the invention substantially as claimed except for wherein the machine further includes a second roll means. However, Chubbuck teaches of a punch and winding machine having a second roll means (41) interposed between a punch arrangement (33, 40) and a tangent point at which the material is rolled onto a mandrel (36) in order to guide the strip onto the mandrel (36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine of Munsterman et al to include a second roll means, as taught by Chubbuck in order to provide a guide means for guiding the punched strip onto the mandrel accurately.

In reference to claim 14, Chubbuck further teaches that the second roll means (41) serves to maintain the un-punched material perpendicular to the punch arrangement, as seen in figure 2.

In reference to claim 15, Chubbuck teaches of providing a single free running roller as the second roll means, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a pair of rollers in order to ensure a more accurate guiding means of the strip onto the mandrel.

In reference to claim 16, Chubbuck further teaches of the second roll means includes a single running roller (41) and wherein the angle present by the material as it leaves the roller never crosses the horizontal plane when winding a complete roll, as seen in figure 2.

In reference to claim 17, Munsterman et al in view of Fritzsche discloses the invention substantially as claimed except for wherein the mandrel includes a fixing means. However, Chubbuck teaches of a punch and winding machine having a mandrel (36) that includes a fixing means (37) in order to attach a leading end (37) of the strip (35) to the mandrel [See FIG 2, col. 4 lines 19-22]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the mandrel of Munsterman et al to include a fixing means, as taught by Chubbuck, in order to ensure attachment of the leading end of the strip to the mandrel during the winding operation.

In reference to claim 18, Chubbuck further teaches of the fixing means including a radial slot cut into the mandrel (36) which is arranged to receive the leading end (37) of the material (35), as seen in figure 2.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter.

It is the opinion of the examiner that the art of record (considered as a whole) neither anticipates nor renders obvious the calculating and determining steps of the material and mandrel in combination with the rest of the claimed limitations set forth in claim 26. Claims 26-34 are allowed.

Response to Arguments

Applicant's arguments filed march 9, 2009 have been fully considered but they are not persuasive. Applicant argues that Munsterman et al does not meet the limitation of "the positioning of said punch arrangement and said mandrel is fixed" but rather teaches that "the mandrel 42, connected to the frame 48, is also caused to linearly move away from the punch 30..." as the material is wound.

The Examiner respectfully disagrees. The punch arrangement and mandrel of Munsterman et al is fixed at a given point during the punching of the strip and structurally meets the limitations of the apparatus as claimed. The rejection is deemed proper.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra Sullivan whose telephone number is (571) 272-1904. The examiner can normally be reached Monday - Thursday 10am - 8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached at (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Debra M Sullivan/
Examiner, Art Unit 3725

/Dana Ross/
Supervisory Patent Examiner, Art Unit 3725